

Science Policy 2020-2021

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'Our vision in science is to encourage curiosity in children so that they ask questions that fuel navigators, explorers and adventurers in the universe we live in.'

At Holden Clough, we encourage children to be inquisitive throughout their time at the school and beyond. The Science curriculum, based around The Dimensions Curriculum, fosters a healthy curiosity in children about our universe and promotes respect for the living and non-living. We are committed to providing a stimulating, engaging and challenging learning environment. Throughout our school children are encouraged to develop and use a range of working scientifically skills including:

- Processes and Changes
- Methods
- Observing and Recording
- Scientific Vocabulary
- Uses and Implications
- Cross-Curricular Links

We promote and celebrate these skills. We want our children to have a broad vocabulary. Scientific language is to be taught and built upon as topics are revisited in different year groups and across key stages. We intend to provide all children regardless of ethnic origin, gender, class, aptitude or disability with a broad and balanced science curriculum.

Teaching, learning and overview:

How Science is taught at Holden Clough:

To ensure high standards of teaching and learning in science, we implement a curriculum that is progressive throughout the school. Science is taught through thematic units and the overview below maps out which thematic units feature this subject and the Long-Term Plan clearly shows the objectives taught.

SCIENCE Learning C Pathways Come Fly Unity in the **Happily Ever** Inter-Nation Light Up Land Ahoy! Zero to Hero With Me! Going Wild Community Media Station the World The Arctic Circle The Sun / Light and Heat Speed, Sound and Motion Life Processes / Light and Electricity Seasons / Materials New Life / Habitats Living Things Growing **Pathfinders** Come Fly A World of Lightning Picture Our Under The Athens v Sparta Law and Order With Me! That's All Folks! Difference Speed Planet Canopy Africa Animals, Including Plants Light Electricity Sound Habitats Humans Adventurers Come Fly Wars of the You're Not A World of I Have a With Me! Mission Control **Full of Beans Global Warning Bright Ideas** World Invited Dream... America Living Things and Liaht Materials Earth and Space Forces Electricity Materials Adaptation **Navigators**

Planning:

Planning is a process in which the Dimension Curriculum ensures that the school gives full coverage of the 2014 National Curriculum programmes of study for Science and Understanding of the World in the Early Years Foundation Stage. Across the school, science is linked to class topics. At the start of each topic teachers prepare knowledge organisers in order to give the children an understanding to what the new unit entails. We include the use of technology, wherever appropriate, to aid teaching and learning.

Through teacher modelling and planned questioning we want our children to wonder about and be amazed and surprised by the world around them as we recognise that our children sometimes lack experiences. Key scientific language is modelled throughout lessons enabling our children to be familiar with and use vocabulary accurately. Teachers are also encouraged to plan in trips and visitors to enhance our children's learning experience.

Assessment:

At Holden Clough, as stated in our vision statement, we aspire to promote children's independence and for all children to take responsibility in their own learning. Each lesson begins with a quiz to reinforce 'sticky knowledge'. The quiz questions include learnt knowledge throughout the year, not just the current unit. Attainment is tracked through SIMS tracking against National Curriculum expectations and Working Scientifically skills.

Resources:

The school holds a central bank (Science cupboard) of teachers' resource books and frequently used resources including hand lenses, magnets, thermometers and measuring equipment. Children are encouraged to choose from a range of equipment and are trained in the safe and considerate use of animals, plants and consumable materials. Expensive and less frequently used items are also kept within the central store. Objects which are specific to a single year group may be kept within those class rooms. The Science coordinator is responsible for maintaining this area and ordering any necessary items that have been identified as a need. All staff members have a shared responsibility for collecting and returning necessary items to the correct place to ensure that resources are easy for all staff to access.

Health and Safety:

The safe use of equipment and consideration of others is promoted at all times. The school's "Health and Safety Policy" should be consulted for details regarding scissors, craft tools, electrical equipment, wet areas, heavy equipment and use of other tools. When planning activities, safety issues should be identified in detail in the weekly plans and acted upon accordingly. Children should be made aware of safety issues and, where appropriate, the reasons behind them. Activities which take place away from the school's premises will require a separate risk assessment form to be filled in.

Monitoring and Evaluation:

Role of Science coordinator:

- · To be enthusiastic about Science and demonstrate good practises.
- · To work alongside colleagues in planning where needed (progress and activities).
- · To work alongside teachers in the classroom (this will depend on release time and other available help), monitoring the planning and delivery of lessons.
- · To coordinate and arrange staff in-service training as required.
- · To audit resources, identify needs and order equipment in school after consultation with colleagues.
- · To manage the Science budget.
- · To "sample" the work of children across the age range (curriculum monitoring).
- · To review and evaluate the effectiveness of teaching and learning of Science, including opportunities for children to develop their spiritual, moral, social and cultural well-being.
- · To provide guidance on the implementation of the Science policy.
- · To suggest appropriate assessment activities where needed.
- · To provide support to those colleagues who request/require it, including help with planning and organisation.